

Vaginal self-swabs for chlamydia and gonorrhea

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Clinical question

What is the most sensitive way to test for chlamydia and gonorrhea?

Bottom line

Self-collected vaginal swabs (SCVS) appear to be more sensitive for diagnosing chlamydia and gonorrhea than health-professional-collected endocervical swabs and first-catch urine (FCU) are. Endocervical swabs and FCU testing might miss up to 10% of sexually transmitted infections in women. When pelvic examination is not required, SCVS is recommended in women.

Evidence

Two studies compared SCVS with endocervical swabs:

- One study followed 3973 women (with and without symptoms) in a sexual health centre who had SCVS followed by a physician-performed endocervical swab¹: -Sensitivity was statistically significantly increased with SCVS (97% vs 88%), and endocervical swabs missed 1 in 11 cases of chlamydia.
- Endocervical swabs and SCVS had similar sensitivities (96% and 99%, respectively) for gonorrhea.²

Endocervical swabs or FCU were compared with SCVS³⁻⁵:

- Symptomatic and asymptomatic women (N=1464) at primary or secondary care clinics had SCVS, physician-collected vaginal swabs, or endocervical swabs and FCU.³ -Physician swabs and SCVS had similar sensitivities (>95%) for gonorrhea and chlamydia. -Compared with FCU, SCVS identified statistically significantly more patients with chlamydia (196 vs 171).
- Of 318 women (172 with chlamydia), FCU had statistically significantly lower sensitivity (88%) compared with endocervical swabs and SCVS (about 97%).⁴
- In 1001 women (73 with chlamydia), endocervical swabs were statistically significantly more sensitive (99%) than FCU (85%), and SCVS (95%) was not different from either.⁵

A systematic review (21 studies) reported no difference in sensitivity of FCU (87%) versus SCVS (92%).⁶

- A limitation was that they were compared with endocervical specimens, which are not 100% sensitive.⁶

Context

- There is no criterion standard for chlamydia and gonorrhea detection, which limits evaluation of new tests.⁷

- Combination swab specificities in the above studies were consistently 99% to 100%.¹⁻³
- Patients find SCVS “easy” to perform (88%) and prefer home completion.⁸
- Patients randomized to home testing are twice as likely to complete the test (about 50% vs 27%).⁹
- Guidelines recommend SCVS when a pelvic examination is not otherwise indicated.¹⁰

Implementation

The swab kit for endocervical chlamydia and gonorrhea testing should be used to collect specimens. Not all laboratories in Canada have validated SCVS tests; however, many will still process them. Specimens can be stored at room temperature and must be processed within 60 days of collection. There is no standard technique for collecting SCVS.⁶ Various durations of swab contact and numbers of swab rotations are used. The manufacturer instructions indicate contact with the vaginal wall should be upward of 30 seconds.¹¹ Patient instructions are available online.¹²

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Competing interests

None declared

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